

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-9: Canceled.

Claim 10 (New): A method for coating a steel or cast iron piston ring for internal combustion engines with an anti-abrasion or anti-corrosion coating on at least a working surface of the piston ring, comprising the following steps:

- a) bringing a first piston ring to a predetermined diameter or creating a predetermined gap in the first piston ring by applying a pre-stress to the first piston ring that equals the stress on the first piston ring that occurs in an installed state of the piston ring;
- b) carrying out an ion coating process on the first piston ring using predetermined coating parameters;
- c) measuring an inherent coating stress of the coating applied in step b);

- d) applying a tensile or pressure pre-stress to a second uncoated piston ring, said tensile or pressure pre-stress equivalent to the inherent coating stress measured in step c); and
- e) coating the second piston ring using the coating parameters used in step b).

Claim 11 (New): A method according to claim 10, wherein in the case of an inherent pressure stress of the coating, the second piston ring has a pressure pre-stress applied to it at a ring circumference during process step f), and in the case of an inherent tensile stress of the coating, the second piston ring has a tensile pre-stress applied to it at the circumference.

Claim 12 (New): A method according to claim 11, wherein the inherent coating stress has a value of -200 to -800 N/mm², after being coated, in an installed state of the piston ring in the cylinder of an engine.

Claim 13 (New): A method according to claim 10, wherein application of the tensile or pressure pre-stress to the second piston ring takes place over an entire duration of the step of

coating (e).

Claim 14 (New): A method according to claim 10, wherein the measurement of the inherent coating stress is performed, after the step of coating (b), by means of X-ray diffraction.

Claim 15 (New): A method according to claim 14, wherein the X-ray diffraction measurement takes place opposite a ring joint.

Claim 16 (New): A method according to claim 10, wherein the coating is formed from CrN, Cr₂N, TiN or TiC.

Claim 17 (New): A method according to claim 10, wherein the coating process is a PVD process.

Claim 18 (New): A method according to claim 10, wherein the coating process is a galvanic process.